Too Smart To Start

SmartSTATS:

a Data Book

An underage alcohol use prevention initiative that provides strategies and materials for professionals and volunteers working at the community level.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
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Introduction

Too Smart To Start is a public education initiative that provides research-based strategies and materials to professionals and volunteers at the community level to help them conduct an underage alcohol use prevention initiative. The materials are designed to help professionals and volunteers educate 9- to 13-year-olds about the harms of alcohol use and to support parents and caregivers as they participate in their children's activities.

Too Smart To Start has three objectives:

- Increase the number of conversations that parents/caregivers and their 9- to 13-year-olds have about the harms of underage alcohol use
- Increase the percentage of 9- to 13-year-olds and their parents/caregivers who see underage alcohol use as harmful
- Increase public disapproval of underage alcohol use.

Little past research has focused on underage alcohol use and 9- to 13-year-olds. The problem of alcohol use has not been previously defined for this population, and data on older youth is being used as a substitute. Yet the 9- to 13-year-old population is unique in its experiences, attitudes, and beliefs, and there is a critical need to provide insight into underage alcohol use for this specific age group. The data in this book offers a clearer picture of the 9- to 13-year-old population, including their specific knowledge, attitudes, beliefs, and behaviors in relation to alcohol.

This booklet contains information on characteristics of both youth and their parents, including factors such as knowledge, parental involvement, and peer norms, that can influence a child's likelihood of being involved with substance use. Since some of these risk and protective factors can be impacted by youth's exposure to this issue in the entertainment media, we have also included data on their media access and use as well as the portrayal of alcohol use in the media. Lastly, to help you develop a program based on sound public health principles and practice, we have included a discussion on using theories and models in the health communication process.

SmartSTATS provides data that can help you create the main messages, communication strategies, and activities of your program as you work toward achieving the objectives of the Too Smart To Start initiative. By familiarizing yourself with important characteristics of both 9- to 13-year-olds and their parents and caregivers, you can more effectively tailor your program to match their interests and needs. SmartSTATS assists you with this process by including national-level information on topics such as knowledge, attitudes, and beliefs about alcohol, underage alcohol consumption, and consequences of underage alcohol use.

Here are some ways SmartSTATS can help you:

- With the appropriate information at your fingertips, respond quickly to questions from parents, community groups, or the media about this issue.
- Select statistics to develop a more convincing case about the importance of this issue and the need for underage

alcohol use prevention programs for this age group.

- Share information with parents to help them start a conversation with their children about underage alcohol use and prepare them for what youth in this age group may already know and do in relation to alcohol.
- Decide how to present your message or what media to use by reviewing data about the habits and preferences of the target audiences, such as their media access and use.
- For professionals and community volunteers facing budget and time constraints, save time and reduce the costs of research by utilizing this information. Or, use it to pinpoint gaps in knowledge and serve as a starting point for additional research about the target audiences in your community.
- Compare the information with existing local or national data to examine differences and trends or determine whether or not new information is representative of a population.

What do we know about 9- to 13-year-olds?

National Population Trends

- Nine- to thirteen-year-olds comprise more than 7 percent of the U.S. population. (FERRET)*
- There are an estimated 21 million 9- to 13-year-olds living in the United States. (FERRET)
- The U.S. Census Bureau predicts that there will be 21.3 million 9- to 13-year-olds by the year 2020. (NP-D1-A)

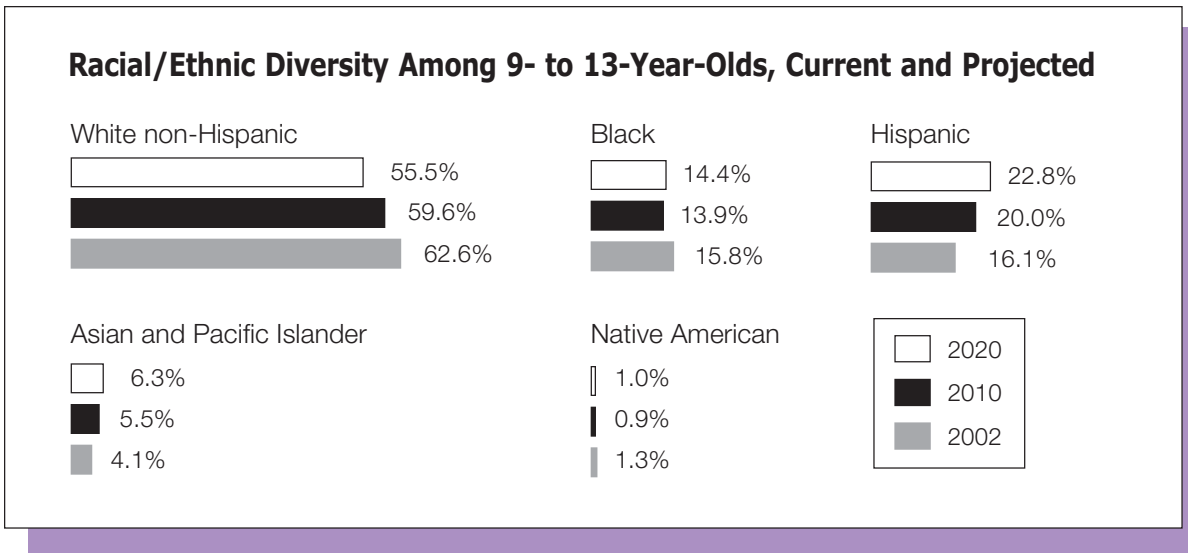
Nine- to thirteen-year-olds comprise a racially and ethnically diverse group.

- More than one-third (37.4 percent) of all 9- to 13-year-olds are persons of color. According to the January 2002 Census Bureau Population Survey, 16 percent are Hispanic, 16 percent are Black, 4 percent are Asian/Pacific Islander, and 1 percent are Native American. The remaining 63 percent are White. (FERRET)
- U.S. Census Bureau projections indicate that the 9- to 13-year-old population will become even more diverse by 2020, with the largest increases expected in the Hispanic population. (NP-D1-A)

Family backgrounds are varied.

- Families are becoming smaller. (FIELDS)
- Forty-one percent of children under age 18 have no siblings in the home. (FIELDS)
- Thirty-eight percent have only one sibling in the home. (FIELDS)

** Full references are found alphabetically, beginning on page 17.*



- People have been delaying marriage and divorce rates have been increasing, which has resulted in a growing number of single-parent households. (FIELDS)
- Fifty-five percent of 9- to 13-year-olds are being raised in households with annual incomes of at least $40,000, 26 percent are being raised in households with annual incomes of $20,000 to $39,999, and 18 percent are being raised in households with annual incomes of less than $20,000. (FERRET)
- Of the 21 million 9- to 13-year-olds resident in the United States, 1.2 million (6 percent) are foreign-born. Moreover, 18 percent of U.S.-born children have at least one foreign-born parent. (FERRET)
- Among 9- to 14-year-olds, approximately 69 percent live in homes where both parents are present*, 23 percent live with their mother, 4 percent live with their father, and another 4 percent have neither parent present in the home. Of those with neither parent present, 51 percent live with a grandparent. (C2)

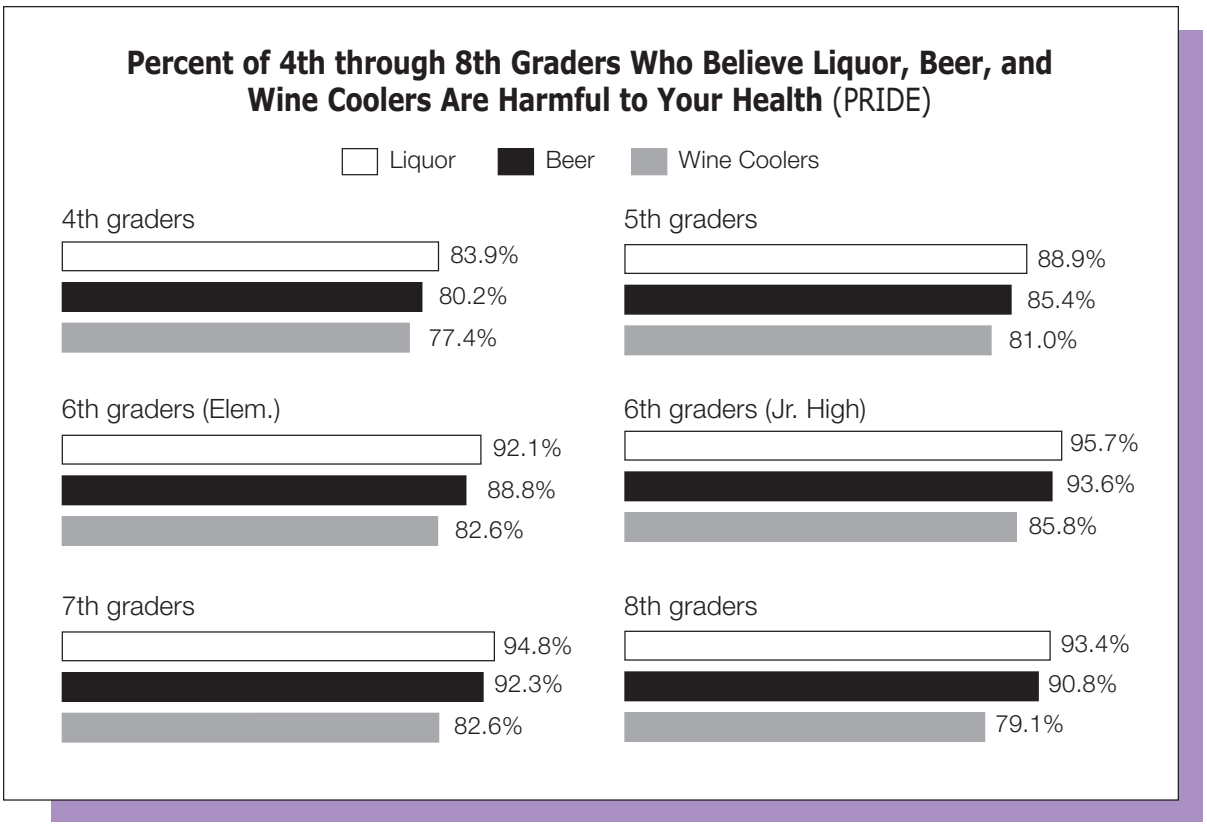
Knowledge, Attitudes, and Beliefs about Alcohol

Students in grades four through eight believe that alcohol use is harmful to their health.

- Among elementary school students (grades four through six), belief in the harm associated with alcohol use increases with increasing grade level. (PRIDE)
- Among junior high school students (grades six through eight), belief in the harm associated with alcohol consumption decreases with increasing grade level. (PRIDE)
- Within each grade level, students are most likely to believe that liquor is harmful to their health, followed by beer, and then by wine coolers. (PRIDE)

Fourth- to sixth-grade elementary school students also believe that alcohol use by children their age is not OK.

** Both parents may or may not be biological parents*



- When students in grades four through six were asked whether it was OK for children their age to use alcohol, most said no. (PRIDE)
- Students make a distinction between the acceptability of various types of alcohol. Wine coolers were most likely to be OK (6 percent), followed by beer (4 percent), and then liquor, which was the least likely to be considered OK for children their age (2 percent). (PRIDE)

Junior high school students (grades six through eight) discuss alcohol-related issues with their parents and teachers, but not with their friends.

- Seventy percent reported that their parents and 71 percent reported that their teachers talk with them about alcohol/drugs sometimes, often or a lot. (PRIDE)
- Thirty-three percent say that their friends talk with them about alcohol/drugs sometimes, often or a lot. (PRIDE)

Students in grades four through eight understood the harmful effects of alcohol on young people. Almost all youth surveyed reported that drinking causes some type of physical harm, though the severity of harm varied by age.

- Fourth- through sixth-graders associated the most serious consequences: "death," "auto accidents," and "makes you commit murder."
- Sixth- through eighth-graders (and a few of the younger group) focused more on individual behavioral changes, including violent and unpredictable acts. (SAMHSA/CSAP)

Use and Perceptions of Alcohol

The majority of 9- to 13-year-olds does not use alcohol, however, alcohol use varies by grade level and by type of alcohol.

- When students were asked whether they had consumed alcohol within the past year, most said they had not. (PRIDE)
- Past-year consumption of wine coolers ranged from 6 percent in the fourth grade to 36 percent in the eighth grade. (PRIDE)
- Past-year consumption of beer ranged from 6 percent in the fourth grade to 34 percent in the eighth grade. (PRIDE)
- Past-year consumption of liquor ranged from a low of 2 percent among fourth graders to a high of 27 percent among eighth graders. (PRIDE)

Even though few fourth to sixth graders report consuming alcohol, some report that their friends do use alcohol.

- When asked how many of their friends consumed beer, 17 percent of fourth- to sixth-grade students and 44 percent of sixth- to eighth-grade students reported having friends who drink beer. (PRIDE)
- Fifteen percent of elementary (fourth through sixth grade) and 39 percent of junior high school (sixth through eighth grade) students reported having friends who drink wine coolers. (PRIDE)
- Eight percent of the younger elementary school (fourth through sixth grade) students and 31 percent of the older junior high school (sixth through eighth grade) students responded that they had friends who consume liquor. (PRIDE)

Though they are not reporting current use of alcohol, some students expect that they will drink alcohol in the future.

- When asked whether they thought that they would ever consume alcohol, 76 percent of students in the fourth grade reported that they will never drink beer, 77 percent reported that they will never drink wine coolers, and 91 percent reported that they will never drink liquor. (PRIDE)

As grade levels increase, however, students were less likely to predict abstention from alcohol.

- Among fifth graders, proportions who predicted staying away from alcohol ranged from 70 percent for beer, 68 percent for wine coolers, and 87 percent for liquor. (PRIDE)
- Among sixth graders in elementary school, 63 percent reported that they would never drink beer, 60 percent that they would never drink wine coolers, and 80 percent that they would never drink liquor. (PRIDE)

Underage Alcohol Consumption and the Developing Brain

Alcohol consumption is associated with structural damage to the brain. (Leadership to Keep Children Alcohol Free)

- Results of autopsy studies show that individuals with a history of chronic alcohol consumption have smaller, lighter, more shrunken brains than nonalcoholic adults of the same age and gender.

- Alcohol differs from illicit drugs in the complexity of its actions on the brain and other organs. While most illicit drugs work on one or several brain neurotransmitters, alcohol influences multiple neurotransmitter systems and brain circuits in ways that may differ from one consumer to the next.
- Moderate consumption of alcohol affects the function of a variety of brain systems associated with emotion, learning, motivation, and coordination.
- It takes less alcohol to damage a young brain than to damage a fully mature one, and the young brain is damaged more quickly.

Repeated exposure to alcohol can produce long-lasting changes in adolescent behavior. (Leadership to Keep Children Alcohol Free)

- The hippocampus, the part of the brain where new memories are consolidated from short-term memory to long-term memory, plays a role in how we learn.
- MRIs used to assess the size of the hippocampus in subjects with adolescent-onset alcohol use disorders and in normal comparison subjects showed that the longer one abused alcohol, the smaller the hippocampus became.
- Research suggests that the adolescent hippocampus is sensitive to the effects of alcohol, and that the earlier in adolescence one begins abusing alcohol, the greater the risk for producing hippocampal damage.
- Studies indicate that alcohol-dependent teens have impaired memory, altered perception of spatial relationships, and verbal skill deficiencies.
- Cognitive impairments have been detected in adolescent alcohol abusers weeks after they stop consuming alcohol. The causes of these long-lasting changes are unclear, but they might involve brain damage and/or alterations in normal brain development.

Consequences of Underage Alcohol Use

Nine- to thirteen-year-old youth who disregard the known harms associated with alcohol use risk a number of serious and potentially life-threatening consequences, including the likelihood of being involved in unsafe activities.

Dependency and Depression

- Youth who begin drinking before the age of 15 are four times more likely to develop alcohol dependence as compared to those who wait until the age of 21. Each additional year of delayed drinking onset reduces the probability of alcohol dependence by 14 percent. (Grant)
- Students diagnosed with alcohol abuse were found to be four times more likely to experience major depression than those without an alcohol problem. (National Institute on Alcohol Abuse and Alcoholism, 1997)

Academic Performance

- A lower dose of alcohol will damage a young brain quickly as compared to a fully mature brain. Alcohol consumption during adolescence is linked with a reduced ability to learn compared to no exposure until adulthood. (Swartzwelder, Wilson, & Tayyeb)

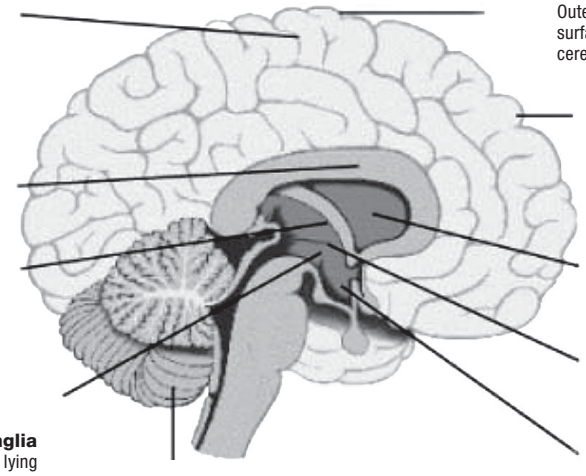
Anatomy of the Brain

Cerebrum
Largest portion of the brain, including the cerebral hemispheres (cerebral cortex and basal ganglia); involved in controlling consciousness and voluntary processes

Corpus callosum
A bundle of fibers connecting the brain's hemispheres

Hippocampus
Part of the limbic system, which is involved in emotional aspects of survival behavior; also plays a role in memory

Basal ganglia
A group of structures lying deep in the brain involved in movement and cognition



Cerebellum
Involved in maintenance of posture, balance, and coordination

Cortex
Outer layer of gray matter covering the surface of the cerebrum and the cerebellum

Neocortex
Outermost portion of the cerebral cortex that contains the most structurally complex brain tissue

Diencephalon
Septal area–related to the limbic system which is involved in emotional aspects of survival behavior

Thalamus–a communication center that relays information to the cerebral cortex

Hypothalamus–important in maintaining the body's internal environment, or homeostasis, through the receipt of sensory and chemical input

Source: Mattson, SN et al. MR and prenatal exposure images provide insight into FAS. Alcohol Health Research World 18(1):49-52, 1994

Long-term Health

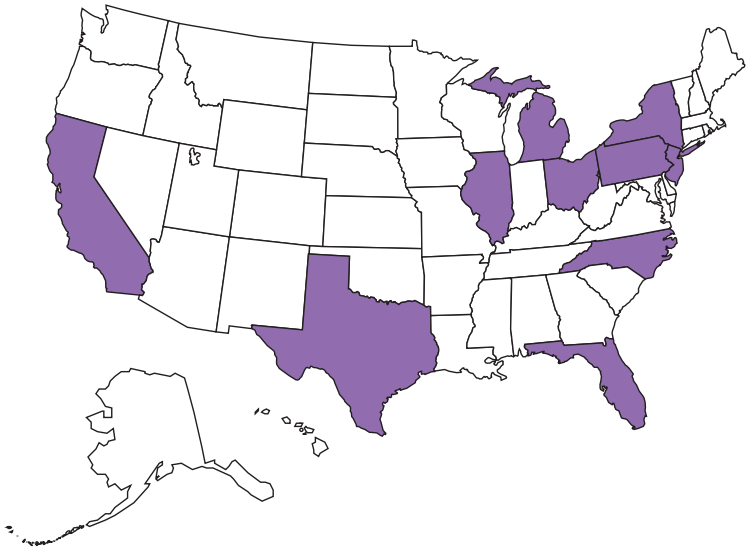
- Youth who drink heavily assume the same long-term health risks as adults who drink heavily. This means they are at increased risk of developing cirrhosis of the liver, pancreatitis, hemorrhagic stroke, and certain forms of cancer. (National Institute in Alcohol Abuse and Alcoholism, 1993)

Behavioral Problems and Crime

- Adolescents who use alcohol are more likely to become sexually active at an earlier age, to have sex more often, and to engage in unprotected sex, which places them at greater risk of HIV infection and other sexually transmitted diseases. (Office of the Inspector General)
- Alcohol use is linked with youthful deaths by drowning, fire, suicide, and homicide. In particular, alcohol use among youth has been associated with considering, planning, attempting, and completing suicide. (National Institute on Alcohol Abuse and Alcoholism, 1997 and 2000)
- Young people who drink are more likely than others to be victims of violent crime, including rape, aggravated assault, and robbery. (National Institute on Alcohol Abuse and Alcoholism, 2000)

Where do they live?

Top Ten States With Youth Ages 9–13



California	2,920,280
Texas	1,665,247
New York	1,290,829
Florida	1,151,351
Illinois	965,325
Ohio	859,106
Pennsylvania	847,406
Michigan	821,091
New Jersey	635,390
North Carolina	521,976

Source: Federal Electronic Research and Review Extraction Tool (FERRET).

What do we know about their parents?

Characteristics of Parents of Children under Age 18

Parents of children under age 18 are from varied backgrounds.

- Thirteen percent have not graduated from high school, 31 percent have a high school diploma, and the rest have had one or more years of college education. (FERRET)
- Four out of every five parents (82 percent) are married, 10 percent are divorced or separated, and 8 percent have never been married. (FERRET)
- More than three in four (78 percent) of them are employed, 4 percent are unemployed, and 18 percent are not in the labor force. (FERRET)

Parents want to be involved in their children's lives.

- Nearly all mothers (94 percent) report talking to their children about school. (Yankelovich)
- Seventy-eight percent of mothers of 9- to 11-year-olds and 69 percent of mothers of 12- to 17-year-olds report that their families eat dinner together. (Yankelovich)
- Sixty-seven percent of parents believe that they are better parents than most parents they know are. (Yankelovich)

Parents' Knowledge, Attitudes, and Beliefs about Children's Alcohol Use

Parents may underestimate both their ability to shape their children's behavior and the risks associated with underage alcohol use. (SAMHSA)

- Despite evidence to the contrary, many parents feel they have little influence over their children's decisions, specifically those pertaining to alcohol use.
- Some parents don't know how to communicate effectively with their children or what specific actions they can take to prevent alcohol use.
- Parents tend to underestimate the vulnerability of their 9- to 11-year-olds to alcohol-related problems and the harms associated with underage alcohol use.
- Only 5 percent of mothers of 9- to 11-year-olds view keeping their children away from alcohol as a major challenge.

Only some parents are talking to their children about alcohol.

- Nearly all mothers of 9- to 11-year-olds (92 percent) believe that they can talk to their child about almost anything. (Yankelovich)
- Sixty-seven percent of mothers of 9- to 11-year-olds and 76 percent of mothers of 12- to 17-year-olds talk to their children about drinking. (Yankelovich)
- Mothers are more likely to talk to their children about their friends, drugs or smoking than about drinking. (Yankelovich)
- Forty-six percent of mothers of 9- to 11-year-olds and 60 percent of mothers of 12- to 17-year-olds report that keeping their children away from drugs and alcohol is a challenge that parents face. (Yankelovich)

A qualitative study suggests a leniency in parents' attitudes toward alcohol use. In that study it was found that parents:

- Expect that their children will try alcohol; however, they assume that their children's alcohol use will not become habitual. (MADD)
- Appear comfortable with alcohol use as a rite of passage for teenagers; therefore, their approach is not to condemn the act, but rather to advocate responsible drinking. (MADD)
- Perceive drug use to be more of a threat to their children's well-being and, thus, are more concerned about drugs than alcohol. (MADD)

Role of media

Access to Media and Use

Youth spend much of their leisure time exposed to media/entertainment.

- Exposure to media influences knowledge, attitudes, beliefs, and behaviors. (Roberts & Christenson)
- Television is the most common information/entertainment medium in households, with 99 percent of 8- to 13-year-olds having access to one or more television sets. (Rideout, et al.)
- Among other common media vehicles are VCRs (97 percent), radios (96 percent), tape players (96 percent), and CD players (92 percent). (Rideout, et al.)
- Many 8- to 13-year-olds have private access to media, with 65 percent of them having a television, 34 percent a VCR, 81 percent a radio, 74 percent a tape player, and 64 percent a CD player in their own bedrooms. (Rideout, et al.)
- Eight- to thirteen-year-olds spend close to 7 hours per day using some type of media. (Rideout, et al.)
- Much of that time (4-1/2 hours) is spent watching television (including commercial and taped video programs). (Rideout, et al.)
- Approximately 1 hour and 20 minutes per day is spent listening to radio, CDs, and tapes. (Rideout, et al.)
- Less than 1 hour per day is spent reading leisure materials. (Rideout, et al.)

Youth distinguish between advertising and programming on television.

- More than three out of five (62 percent) 9- to 11-year-olds do not like watching television commercials and more than half (56 percent) sometimes/usually change the channel when a commercial begins. (Yankelovich)

Nine- to thirteen-year-olds have ready access to computers and to the Internet.

- Approximately 90 percent of 9- to 13-year-olds use computers at school. (FERRET)
- Nearly three out of four (73 percent) 9- to 13-year-olds have computers at home and of those, only 8 percent do not use them. (FERRET)

Of those using home computers:

- Seventy-eight percent use them to do their school assignments; (FERRET)
- Eighty-four percent use them to connect to the Internet and 53 percent use them for e-mail. (FERRET)
- Five percent of parents say that concern about how children will use the Internet is their main reason for not having Internet access. (FERRET)

Portrayal of Alcohol Use in the Entertainment Media

Alcohol use is often portrayed positively on television.

- Alcohol consumption is more common on television than either tobacco or other drug use. (Roberts & Christenson)
- Television portrayals of alcohol consumption are, in general, more likely to be positive than negative. (Roberts & Christenson)
- Alcohol references in popular television shows are often paired with humor. (Christenson, Henriksen, & Roberts)
- In a review of 4 consecutive episodes of the 20 most popular television shows among 12- to 17-year-olds, alcohol use was mentioned in almost three-fourths (73 percent) and it was consumed by major characters in more than half (53 percent) of the 80 episodes. (Christenson, Henriksen, & Roberts)

Movies routinely depict alcohol use.

- Among the 200 most popular home video rentals in 1996-1997, 92 percent contained references to alcohol. (Roberts, Henriksen, & Christenson)
- In more than half (57 percent) of those movies depicting alcohol consumption, no negative consequences to the user were depicted. (Roberts, Henriksen, & Christenson)
- Thirty-four percent associated alcohol use with wealth and luxury. (Roberts, Henriksen, & Christenson)
- Nineteen percent associated alcohol use with sexual activity. (Roberts, Henriksen, & Christenson)
- Alcohol use was associated with crime or violence in more than one-third (37 percent) of the most popular movie rentals in 1996-1997. (Roberts, Henriksen, & Christenson)

Music lyrics contain references to alcohol consumption.

- Among 1,000 of the most popular songs for 1996-1997, 15 percent made reference to alcohol consumption. (Roberts, Henriksen, & Christenson)
- In nearly every song (91 percent) depicting alcohol consumption, no negative consequences to the user were depicted. (Roberts, Henriksen, & Christenson)
- Twenty-four percent associated alcohol use with wealth and luxury. (Roberts, Henriksen, & Christenson)
- Thirty-four percent associated alcohol use with sexual activity. (Roberts, Henriksen, & Christenson)
- Of the five musical genres evaluated, alcohol use was most common among rap (47 percent), followed by country-western (13 percent), hot-100/top-40 (12 percent), alternative rock (10 percent), and heavy metal (4 percent). (Roberts, Henriksen, & Christenson)

Theories and Models for Health Communications

Using Theories and Models

According to the National Institutes of Health (NIH) National Cancer Institute's (NCI) Making Health Communications Work (2002), "sound health communication development should draw upon theories[1] and models that offer different perspectives on the intended audiences and on the steps that can influence their change. No single theory dominates health communication because health problems, populations, cultures, and contexts vary. Many programs achieve the greatest impact by combining theories to address a problem." In planning, developing, implementing, and evaluating the Too Smart To Start Initiative, the Substance Abuse and Mental Health Services Administration is using a comprehensive health communications approach that is guided by various behavioral theories and models.

Making Health Communications Work, further states, "Although theories cannot substitute for effective planning and research, they offer many benefits for the design of health communication programs. At each stage of the health communication process, theories and models can help answer key questions, such as:

- Why a problem exists
- Whom to select
- What you need to know about the population/intended audience before taking action
- How to reach people and make an impact
- Which strategies are most likely to cause change

Reviewing theories and models can suggest factors to consider as you formulate your objectives and approach, and can help you determine whether specific ideas are likely to work. Theories and models can guide message and materials development, and are also useful when you decide what to evaluate and how to design evaluation tools." For a more indepth discussion of health communication programming, refer to the National Institutes of Health National Cancer Institute's *Making Health Communication Programs Work* (2002).

Theories and Models for Health Communications Planning

The following are examples of theories and models that you can use while working through a health communication process.

Cognitive Theories and Models[2]

- *Developmental Concept* (Erickson, 1963). As 9- to 13-year-old children age, they continue to develop physically, emotionally, and mentally. All of these

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[1] *A theory is an explanation of how two or more variables work together to produce a certain outcome(s). (Witte, Meyer, and Martell, 2001)*

[2] *CSAP, Identity matters, Resource Manual, June 2001.*

changes are happening at once, but not necessarily at the same rate. Understanding child development will help you design projects and messages that a child is emotionally ready to handle. This information will help you recognize how differently people at different ages respond to motivators, process information, and interact with their environment.

- *Health Belief Model (*Hochbaum, Kegels, and Rosenstock, 1952). This theory focuses on the relationships between health behaviors and individual perceptions. It says that individual risk perception affects the likelihood of taking preventive measures. Further, an individual's tendency to take action is influenced by his or her perception of the personal threat as well as the benefits and barriers to taking action. This model is especially appropriate for preventive health campaigns—you persuade people to avoid developing habits that are bad for their health by showing them the consequences looming ahead.
- *Social Cognitive (Learning) Theory* (Bandura, 1977, 1986). Behavioral change is influenced through the interplay of knowledge, behavior, and social context applied at individual, community, or institutional levels. This theory suggests that information transmitted through both formal and informal networks within the community is most influential, and that a person's unique behavior is determined by reciprocal interactions among personal factors, behavior, and environment.
- *Theory of Reasoned Action* (Fishbein and Ajzen, 1975). This theory addresses relationships among beliefs, attitudes, intentions, and behaviors. According to this theory, to change behavior it is necessary to understand whether the behavior is determined by an attitude or a social norm. People pay attention to what others think about their behaviors, and their actions reflect the importance this opinion has to them.
- *Uncertainty Reduction Theory* (Berger, 1975). According to this theory, uncertainty reduction is the main goal of interpersonal communication. Further, the degree of uncertainty (concerning perceived similarity, intimacy, reciprocity, and liking increases) has a profound effect on the way people communicate, both verbally and nonverbally.

Social Process Theories and Models[3]

- *Attribution Theory* (Heider, Jones, and Kelley, 1958–67). This theory posits that people act on the basis of their beliefs, regardless of the validity of those beliefs. Further, people's beliefs profoundly affect their explanation and understanding of events around them, including their own actions and the actions of others.
- *Cultivation Theory (*Gerbner, Gross, Morgan, and Signorielli, 1980, 1986). According to this theory, repeated, intense exposure to deviant definitions of "reality" in the mass media leads to perception of the deviant reality as normal. The result is a social legitimization of the reality as depicted in the mass media, which can influence behavior.
- *Cultural Competence and Intercultural Communication*.[4] Everything you do

[3] *CSAP, Identity matters, Resource Manual, June 2001.*

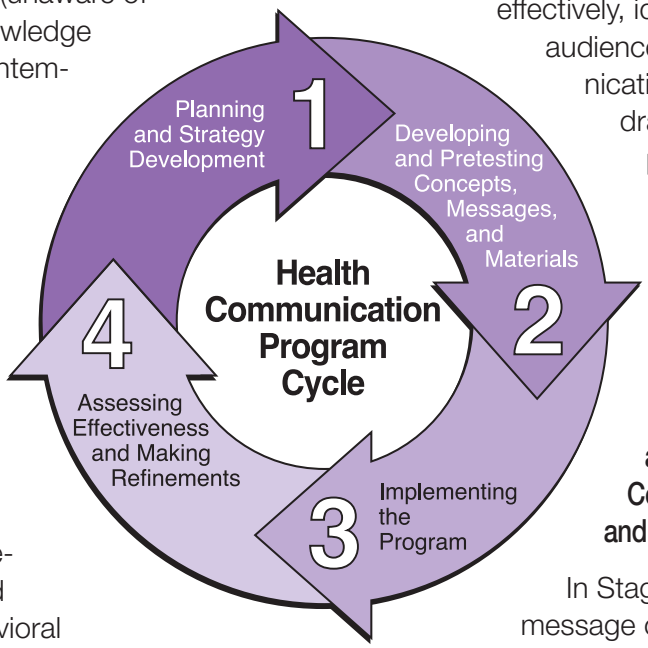
[4] *CSAP, Technical Assistance Bulletin, September 1994.*

should respect the diversity of your community, recognizing ethnic, gender, age, and other characteristics. Only when prevention programs are culturally tailored to the specific target audience, and when cultural diversity is respected and addressed, will relevance to and impact on the target population increase. For example, if a particular group considers it inappropriate to voice criticism publicly, do not expect too much feedback in a focus group evaluating your activities. Give these individuals an alternative way to express themselves such as written questionnaires or a suggestion box, keeping an eye toward what instruments are appropriate for the people in your community.

- *Diffusion Theory (*Rogers, 1983, 1995). According to this theory, individuals in social systems are most likely to adopt new behavior that is based on favorable evaluation of the intervention and that is conveyed to them within their social networks. Telling people how to change their behavior works best when you tap a community's formal and informal communication networks.
- *Multimedia Approaches* (Hornik, 1989; Rogers, 1995). Health communication has three broad, basic channels: interpersonal communication aimed to families, friends, and health providers; group communication, including mobilization of community organizations; and mass media, including print and broadcast. A lead channel that reaches the intended audience needs to be identified based on analysis of the target population. What works best and what is most effective in health communication are multimedia approaches that use more than one medium or channel, that combine media to repeat and reinforce key messages.
- *Resiliency* (Rutter, 1993). This theory concerns the ability to develop or strengthen certain traits in individuals through positive influences in their own environment. These traits are social competence (communication skills), problem solving (critical and creative thinking), autonomy (self-awareness, identity), and aspirational levels.
- *Social Identification Model* (Turner and Taifel). This model says that people identify with the groups that they actually belong to, as well as groups they admire and groups they perceive as having traits in common with themselves.
- *Social Marketing* (Kotler, 1989). This model emphasizes the need to target and carefully select segments of the target audience, with the audience segmentation or targeting based on selected variables (such as geography, sex, age, values, or lifestyle). This kind of targeting allows for the selection of appropriate channels, messages, and sources for given audience segments.
- *Social Norm.* Social norms reflect peoples' belief about the behavior expected of them in a particular social context. People's perceptions of social norms are often good predictors of what they will say and do. Most people prefer to fall within normative ranges of behavior, however, perceptions of certain populations about nonnormative behavior often differ significantly from the facts. Further, members of a community may adapt their behavior to fall

within perceived rather than actual norms.

- *Transtheoretical Model/Stages of Change Theory.* (Prochaska and DiClemente, 1983, 1985; Prochaska and DiClemente and Norcross, 1992). According to this model/theory, sustainable behavioral change in individuals moves through the following stages: precontemplation (unaware of or refuse to acknowledge their own risk); contemplation (begin to consider the need to change, evaluate cost and benefits); preparation (decision making and planning for change); action (begin to perform their new behavior consistently); and maintenance (solidify and routinize the behavioral practice).



Health Communication Process

NCI's four-stage health communications process offers a practical approach for planning, implementing, and evaluating health communication efforts. The four stages constitute a circular method in which the last step feeds back into the first as you work through a continuous loop of planning, implementation, and improvement. In each of the stages, it is important to learn about the intended audience's needs and perceptions. These needs and perceptions may change as the project progresses, so be prepared to make changes to the program as you proceed.

Stage One: Planning and Strategy Development

In Stage One, you create the plan that will provide the foundation for your program. By the end, you will have identified how your organization can use communication effectively, identified the target audience, crafted a communication strategy, and drafted communication plans, including activities, partnerships, and baseline surveys for outcome evaluation.

Stage Two: Developing and Pretesting Concepts, Messages, and Materials.

In Stage Two, you develop message concepts and explore them with the intended audience using qualitative research methods. By the end, you will have developed messages, planned activities and drafted materials, and pretested the messages and materials with your intended audience.

Stage Three: Implementing the Program

During Stage Three, you introduce the fully developed program to the intended audience. By the end of the stage, you will have begun program implementation, tracked intended audience exposure and reaction,

and made revisions and adjustments when needed.

Stage Four: Assessing Effectiveness and Making Refinements

In Stage Four, you assess the program using the outcome evaluation methods you planned in Stage One. By the end, you will have assessed your program and identified refinements to increase the effectiveness of future program iterations.

Lastly, because program planning is a recurring process, you will likely conduct the planning, management, and evaluation activities described in the above stages throughout the life of the program.

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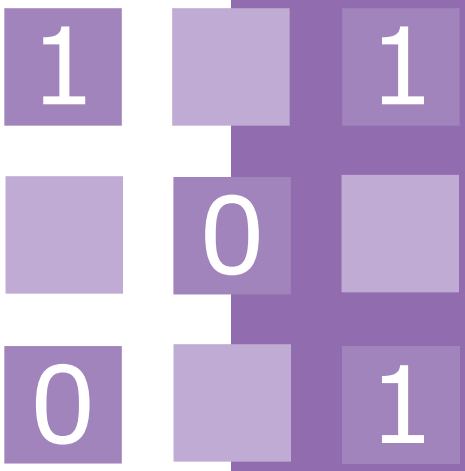

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